

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in the Application. Claims 1, 3, 4, 12, 13, 15, 17-19, 21-30, 32, and 36 are amended. No new matter is introduced with these amendments.

Listing of Claims:

Claim 1. (Currently amended) An electronic device network, the network comprising:

a plurality of servers; [[and]]

a plurality of electronic devices communicatively coupled to at least one of the plurality of servers, each of the electronic devices being adapted to employ at least one of a plurality of update agents resident in the electronic device, wherein the update agent employed is selected to correspond to a type of update information received by the electronic device from the at least one of the plurality of servers, wherein the selected update agent processes the received update information to modify a first version of one of software and firmware in the electronic device to a second version, and wherein the electronic device is also adapted to provision the plurality of update agents with parameters and data used to facilitate update operations in the electronic device; and

a database in each of the plurality of electronic devices for accessing the plurality of provisioned update agents in a corresponding electronic device.

Claim 2. (Previously Presented) The network according to claim 1, wherein the electronic device comprises random access memory and non-volatile memory, wherein the non-volatile memory comprises a plurality of components, the plurality of components comprising at least one of the following: an update application loader, the plurality of update agents, firmware, an operating system (OS), and provisioned data, and wherein the provisioned data comprises update agent provisioning information and a number assignment module.

Claim 3. (Currently amended) The network according to claim 1, wherein the network [[further]] comprises at least one of an update server, and a plurality of generators, wherein the generators are adapted to generate updates able to be processed by at least one provisioned update agent in the electronic device, and wherein the update server is adapted to store updates accessible by the plurality of servers.

Claim 4. (Currently amended) The network according to claim 1, wherein the electronic device [[further]] comprises a provisioned data unit adapted to store information related to an end-user's electronic device subscription, and wherein the provisioned data unit may be programmed during number assignment module programming activity.

Claim 5. (Original) The network according to claim 4, wherein the number assignment module programming activity comprises at least one of over-the-air service provisioning (OTASP) activity and over-the-air parameter administration (OTAPA) activity.

Claim 6. (Original) The network according to claim 4, wherein the provisioned data unit is adapted to store at least one of update agent related provisioning information, a universal resource locator of a server used to retrieve updates, and a security key used to authenticate server messages.

Claim 7. (Original) The network according to claim 4, wherein each of the plurality of update agents has a corresponding entry in the provisioned data unit.

Claim 8. (Previously Presented) The network according to claim 1, wherein one of the plurality of update agents is designated a primary update agent and another of the plurality of update agents is designated as a secondary update agent, and wherein the primary update agent is used to perform updates during one of power up and reboot of the electronic device and the secondary update agent is used to perform updates not requiring electronic device rebooting.

Claim 9. (Original) The network according to claim 1, wherein the electronic device is adapted to display a list of available update agents to an end-user and solicit selection of an update agent to be used to update at least one of software and firmware.

Claim 10. (Previously Presented) The network according to claim 1, wherein the electronic device is adapted to invoke an update agent based upon an update currently being processed provided that the update agent is provisioned in the electronic device.

Claim 11. (Previously Presented) The network according to claim 1, wherein the electronic device may execute an update application loader on reboot, and wherein the update application loader is adapted to invoke a boot initialization code before determining to update the electronic device.

Claim 12. (Currently amended) The network according to claim 1, [[further]] comprising update agent provisioning information stored in the electronic device, the update agent provisioning information comprising at least one of the following: a device server URL, an index to the database for accessing the plurality of provisioned update agents, a security key, and electronic device related information, wherein the device server URL provides references to servers hosting updates to be downloaded, and wherein the updates are compatible with update agents currently available and provisioned in the electronic device.

Claim 13. (Currently amended) The network according to claim 12, wherein the index to the database for accessing the plurality of provisioned update agents provides an index value used to compute an address location of a provisioned update agent, and wherein the index to the database for accessing the plurality of provisioned update agents provides an index to a table containing an address for an update agent in non-volatile memory the electronic device.

Claim 14. (Previously Presented) The network according to claim 12, wherein the security key is used to authenticate updates during download of updates and during update activity, wherein a separate security key is employed to authenticate updates by

a download agent and by the update agent, and wherein the security key is employed for at least one of the following: secure communication, encryption, and decryption of data and messages during communication with external systems.

Claim 15. (Currently amended) The network according to claim 1, wherein the database for accessing the plurality of provisioned update agents in the electronic device [[further]] comprises an update agent table resident in non-volatile memory, the update agent table containing references to a plurality of update agents currently available and provisioned in the electronic device, the update agent table associating update agent names, update agent address locations, types of updates that the update agents are adapted to process, and provisioning status of the update agents for all available update agents in the electronic device.

Claim 16. (Previously Presented) The network according to claim 1, wherein the electronic device comprises at least one of a plurality of mobile electronic devices, and wherein the plurality of mobile electronic devices comprise at least one of the following: a mobile cellular phone handset, a personal digital assistant, a pager, an MP3 player, and a digital camera.

Claim 17. (Currently amended) A method employing a plurality of update agents in an electronic device in an electronic device network, the method comprising:

communicatively coupling a plurality of electronic devices to at least one of a plurality of servers;

selecting at least one of a plurality of update agents resident in the electronic device to modify a first version of one of software and firmware in the electronic device to produce an updated version, wherein each of the plurality of update agents is arranged to process a corresponding type of update information received from the at least one of a plurality of servers; and

provisioning the plurality of update agents with parameters and data used to facilitate update operations in the electronic device, wherein a database is used for accessing the plurality of provisioned update agents.

Claim 18. (Currently amended) The method according to claim 17, [[further]] comprising generating updates able to be processed by at least one provisioned update agent in the electronic device and storing updates in an update server.

Claim 19. (Currently amended) The method according to claim 17, [[further]] comprising:

storing information related to an end-user's electronic device subscription; and
programming a provisioned data unit during number assignment module programming activity.

Claim 20. (Previously Presented) The method according to claim 19, wherein the number assignment module programming activity comprises at least one of the following: over-the-air service provisioning (OTASP) activity and over-the-air parameter administration (OTAPA) activity.

Claim 21. (Currently amended) The method according to claim 19, wherein the programming [[further]] comprises storing update agent related provisioning information, a universal resource locator of a server used to retrieve updates, and a security key used to authenticate server messages.

Claim 22. (Currently amended) The method according to claim 19, [[further]] comprising providing each update agent an entry in a provisioned data unit.

Claim 23. (Currently amended) The method according to claim 17, [[further]] comprising:

designating a primary update agent and a secondary update agent;
using the primary update agent to perform updates during one of the following:
power up and reboot of the electronic device; and
using the secondary update agent to perform updates not requiring electronic device rebooting.

Claim 24. (Currently amended) The method according to claim 17, [[further]] comprising:

displaying a list of available update agents to an end-user; and
soliciting selection of an update agent to be used to update at least one of software and firmware.

Claim 25. (Currently amended) The method according to claim 17, [[further]] comprising invoking an update agent based upon an update currently being processed provided that the update agent is provisioned in the electronic device.

Claim 26. (Currently amended) The method according to claim 17, [[further]] comprising executing an update application loader on reboot of the electronic device and invoking a boot initialization code before determining to update the electronic device.

Claim 27. (Currently amended) The method according to claim 17, [[further]] comprising:

storing update agent provisioning information in the electronic device; and
hosting updates to be downloaded with update agents provisioned in the electronic device.

Claim 28. (Currently amended) The method according to claim 17, [[further]] comprising determining an address location of a provisioned update agent via the database for accessing the plurality of provisioned update agents, wherein determining comprises one of computing and accessing an entry in a table.

Claim 29. (Currently amended) The method according to claim 17, [[further]] comprising:

authenticating updates during download of the updates and during update activity, using a security key;
employing a separate security key to authenticate updates by a download agent and by the at least one of a plurality of update agents; and

employing the security key for at least one of the following: secure communication, encryption, and decryption of data and messages, during communication with external systems.

Claim 30. (Currently amended) The method according to claim 17, [[further]] comprising mapping at least one of the following: update agent names, update agent address locations, types of updates that the update agents are adapted to process, and provisioning status of the update agents, for all available update agents in the electronic device.

Claim 31. (Previously Presented) The method according to claim 17, wherein the electronic device comprises at least one of the following: a plurality of mobile electronic devices, and wherein the plurality of mobile electronic devices comprise at least one of a mobile cellular phone handset, a personal digital assistant, a pager, an MP3 player, and a digital camera.

Claim 32. (Currently amended) An electronic device operable in an electronic device network, the electronic device comprising:

non-volatile memory comprising a first version of code;

communication circuitry for receiving, from at least one server in the electronic device network, update information having an associated type;

code resident in and executable by the electronic device, the code comprising a plurality of provisioned update agents selectable to cause processing of a corresponding type of received update information, to update a related code portion of the first version of code to an updated version, wherein a database in the electronic device enables accessing of the plurality of provisioned update agents;

wherein the processing modifies the related code portion of the first version of code to produce the updated version; and

wherein a[[n]] provisioned update agent is selected to perform an update based upon the type of the received update information.

Claim 33. (Previously Presented) The electronic device according to claim 32 wherein the communication circuitry comprises a cellular network interface.

Claim 34. (Previously Presented) The electronic device according to claim 32 wherein the update information comprises an update package.

Claim 35. (Previously presented) The electronic device according to claim 32 wherein a portion of the non-volatile memory comprises provisioned data received from at least one of the plurality of servers.

Claim 36. (Currently amended) The electronic device according to claim 35 wherein the provisioned data comprises at least one entry corresponding to one of the plurality of provisioned update agents.

Claim 37. (Previously Presented) The electronic device according to claim 35 wherein programming of provisioned data is performed during programming of information related to a wireless service subscription.

Claim 38. (Previously Presented) The electronic device according to claim 35 wherein provisioned data comprises a universal resource locator of a server on which a corresponding type of update information is stored.

Claim 39. (Previously Presented) The electronic device according to claim 35 wherein provisioned data comprises security information enabling update of the related code portion.